OIPE

RAW SEQUENCE LISTING   DATE: 11/18/2002
PATENT APPLICATION: US/10/046,232   TIME: 12:29:01

Input Set : **N:\vernette\10046232.RAW.txt**
Output Set: **N:\CRF4\11182002\J046232.raw**

```
   3 <110> APPLICANT: Helmut SCHWAB
   4        Anton GLIEDER
   5        Christoph KRATKY
   6        Ingrid DREVENY
   7        Peter POCHLAUER
   8        Wolfgang SKRANC
   9        Herbert MAYRHOFER
  10        Irma WIRTH
  11        Rudolf NEUHOFER
  12        Rodolfo BONA
  14 <120> TITLE OF INVENTION: New genes containing a DNA sequence coding for a
hydroxynitrile lyase,
  15        recombinant proteins derived therefrom and having hydroxynitrile lyase activity,
and use
  16        thereof
  18 <130> FILE REFERENCE: 2001-1882A/LC/01553
  20 <140> CURRENT APPLICATION NUMBER: 10/046,232
C--> 21 <141> CURRENT FILING DATE: 2002-10-31
  23 <150> PRIOR APPLICATION NUMBER: A60/2001
  24 <151> PRIOR FILING DATE: 2001-01-16
  26 <150> PRIOR APPLICATION NUMBER: A523/2001
  27 <151> PRIOR FILING DATE: 2001-04-03
  29 <160> NUMBER OF SEQ ID NOS: 24
  31 <170> SOFTWARE: PatentIn Ver. 2.1
  33 <210> SEQ ID NO: 1
  34 <211> LENGTH: 35
  35 <212> TYPE: DNA
  36 <213> ORGANISM: Artificial Sequence
  38 <220> FEATURE:
  39 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
  41 <400> SEQUENCE: 1
  42 cggaattcac aatatggaga aatcaacaat gtcag                           35
  44 <210> SEQ ID NO: 2
  45 <211> LENGTH: 33
  46 <212> TYPE: DNA
  47 <213> ORGANISM: Artificial Sequence
  49 <220> FEATURE:
  50 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic      —
oligonucleotide primer
  52 <400> SEQUENCE: 2
  53 cggaattctt cacatggact cttgaatatt atg                             33
  55 <210> SEQ ID NO: 3
  56 <211> LENGTH: 64
```

```
57 <212> TYPE: DNA
58 <213> ORGANISM: Artificial Sequence
60 <220> FEATURE:
```

RAW SEQUENCE LISTING   DATE: 11/18/2002
PATENT APPLICATION: US/10/046,232   TIME: 12:29:01

Input Set : N:\vernette\10046232.RAW.txt
Output Set: N:\CRF4\11182002\J046232.raw

      61 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
      63 <400> SEQUENCE: 3
      64 gaagatctga attccatgga gaaatcaaca atgtcagtta tactatttgt gttgcatctt 60
      65 cttg   64
      67 <210> SEQ ID NO: 4
      68 <211> LENGTH: 68
      69 <212> TYPE: DNA
      70 <213> ORGANISM: Artificial Sequence
      72 <220> FEATURE:
      73 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
      75 <400> SEQUENCE: 4
      76 ctatttgtgt tgcatcttct tgttcttcat cttcagtatt cagaggttca ctcgcttgcc 60
      77 aatacttc   68
      79 <210> SEQ ID NO: 5
      80 <211> LENGTH: 67
      81 <212> TYPE: DNA
      82 <213> ORGANISM: Artificial Sequence
      84 <220> FEATURE:
      85 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
      87 <400> SEQUENCE: 5
      88 gttcactcgc ttgccaatac ttctgctcat gattttagct acttgaagtt tgtgtacaac 60
      89 gccactg   67
      91 <210> SEQ ID NO: 6
      92 <211> LENGTH: 33
      93 <212> TYPE: DNA
      94 <213> ORGANISM: Artificial Sequence
      96 <220> FEATURE:
      97 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
      99 <400> SEQUENCE: 6
     100 gatgtattgg aagagaagag gatcttctct act   33
     102 <210> SEQ ID NO: 7
     103 <211> LENGTH: 56
     104 <212> TYPE: DNA
     105 <213> ORGANISM: Artificial Sequence
     107 <220> FEATURE:
     108 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
     110 <400> SEQUENCE: 7
     111 gatcctcttc tcttccaata catcaaattt gtcagctatt ggagtcatat atacgg   56
     113 <210> SEQ ID NO: 8
     114 <211> LENGTH: 66
     115 <212> TYPE: DNA
     116 <213> ORGANISM: Artificial Sequence
     118 <220> FEATURE:
     119 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
     121 <400> SEQUENCE: 8
     122 caaccggatt gacctttctt gcaggatttg aaggcccaca taccttccta acatcagata 60
     123 gaagcc   66

```
125 <210> SEQ ID NO: 9
126 <211> LENGTH: 73
```

RAW SEQUENCE LISTING   DATE: 11/18/2002
PATENT APPLICATION: US/10/046,232   TIME: 12:29:01

        Input Set : N:\vernette\10046232.RAW.txt
        Output Set: N:\CRF4\11182002\J046232.raw

    127 <212> TYPE: DNA
    128 <213> ORGANISM: Artificial Sequence
    130 <220> FEATURE:
    131 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    133 <400> SEQUENCE: 9
    134 gaagatctgg aattcttcac atggactctt gaatattatg aatagcctcc aaccggattg 60
    135 acctttcttg cag   73
    137 <210> SEQ ID NO: 10
    138 <211> LENGTH: 114
    139 <212> TYPE: DNA
    140 <213> ORGANISM: Artificial Sequence
    142 <220> FEATURE:
    143 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    145 <400> SEQUENCE: 10
    146 tcgaattcga gctcggtacc cggggatcct ctagaaataa ttttgtttaa ctttaagaag 60
    147 gagatataca tatggagaaa tcaacaatgt cagttatact atttgtgttg catc   114
    149 <210> SEQ ID NO: 11
    150 <211> LENGTH: 54
    151 <212> TYPE: DNA
    152 <213> ORGANISM: Artificial Sequence
    154 <220> FEATURE:
    155 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    157 <400> SEQUENCE: 11
    158 cgaattcgcc ctttcgcatg ctcacatgga ctcttgaata ttatgaatag cctc   54
    160 <210> SEQ ID NO: 12
    161 <211> LENGTH: 72
    162 <212> TYPE: DNA
    163 <213> ORGANISM: Artificial Sequence
    165 <220> FEATURE:
    166 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    168 <400> SEQUENCE: 12
    169 cacgaattca tcatgcagac tctccttgtg agctcgcttg tggtctccct cgctgcggcc 60
    170 ctgccacact ac   72
    172 <210> SEQ ID NO: 13
    173 <211> LENGTH: 75
    174 <212> TYPE: DNA
    175 <213> ORGANISM: Artificial Sequence
    177 <220> FEATURE:
    178 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    180 <400> SEQUENCE: 13
    181 tgcggccctg ccacactaca tcaggagcaa tggcattgaa gcctacaacg ccactgatac 60
    182 aagctcggaa ggatc   75
    184 <210> SEQ ID NO: 14
    185 <211> LENGTH: 51
    186 <212> TYPE: DNA
    187 <213> ORGANISM: Artificial Sequence
    189 <220> FEATURE:
    190 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic

oligonucleotide primer
     192 <400> SEQUENCE: 14

RAW SEQUENCE LISTING   DATE: 11/18/2002
PATENT APPLICATION: US/10/046,232   TIME: 12:29:01

              Input Set : N:\vernette\10046232.RAW.txt
              Output Set: N:\CRF4\11182002\J046232.raw

    193 gaattcgcat gcggccgctc actgcattga cctttcttgc aggatttgaa g   51
    195 <210> SEQ ID NO: 15
    196 <211> LENGTH: 29
    197 <212> TYPE: DNA
    198 <213> ORGANISM: Artificial Sequence
    200 <220> FEATURE:
    201 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    203 <400> SEQUENCE: 15
    204 actacgaatt cgaccatgga gaaatcaac   29
    206 <210> SEQ ID NO: 16
    207 <211> LENGTH: 52
    208 <212> TYPE: DNA
    209 <213> ORGANISM: Artificial Sequence
    211 <220> FEATURE:
    212 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    214 <400> SEQUENCE: 16
    215 cagaattcgc ccttgtgcat gcatcgatta aagaaccaag gatgctgctg ac   52
    217 <210> SEQ ID NO: 17
    218 <211> LENGTH: 33
    219 <212> TYPE: DNA
    220 <213> ORGANISM: Artificial Sequence
    222 <220> FEATURE:
    223 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    225 <400> SEQUENCE: 17
    226 actacgaatt cgaccatgga gaaatcaaca atg   33
    228 <210> SEQ ID NO: 18
    229 <211> LENGTH: 22
    230 <212> TYPE: DNA
    231 <213> ORGANISM: Artificial Sequence
    233 <220> FEATURE:
    234 <223> OTHER INFORMATION: Description of the artificial sequence: Synthetic
oligonucleotide primer
    236 <400> SEQUENCE: 18
    237 atgctgctga cttgagggaa tc   22
    239 <210> SEQ ID NO: 19
    240 <211> LENGTH: 2162
    241 <212> TYPE: DNA
    242 <213> ORGANISM: Prunus amygdalus
    244 <400> SEQUENCE: 19
    245 ggaattcaca atatggagaa atcaacaatg tcagttatac tatttgtgtt gcatcttctt 60
    246 gttcttcatc ttcagtattc agaggttcac tcgcttgcca atacttctgc tcatggtaaa 120
    247 tttccatctt cagtattcat ttaacagcaa aatgtgtaga tttataatta agaaaactga 180
    248 cacaagtagt gcaagaaaca agctaattta gatgcatgtt gaaaaaaatc tttcatctct 240
    249 tcacatatat tttgcagatt ttagctactt gaagtttgtg tacaacgcca ctgatacaag 300
    250 ctcggaagga tcatatgact acattgtaat cggtggagga acatcagggt gtccattggc 360
    251 agcaacttta tcagaaaaat acaaggtgct tcttctagaa agaggcacta ttgctacaga 420
    252 atacccgaac acgttgactg cagatgggtt tgcatataat ctgcagcaac aagatgatgg 480
    253 aaagacgcca gttgaaaggt tcgtgtccga agatggcatt gataatgtgc gagccaggat 540
    254 cctcggtggc acgaccataa tcaatgcagg cgtctacgcc agagctaaca tttcattcta 600
    255 tagtcaaaca ggaattgaat gggacctgga tttggtcaat aagacatatg agtgggttga 660

RAW SEQUENCE LISTING   DATE: 11/18/2002
PATENT APPLICATION: US/10/046,232   TIME: 12:29:01

Input Set : N:\vernette\10046232.RAW.txt
Output Set: N:\CRF4\11182002\J046232.raw

```
256 agacgccatt gtggtcaagc caaataatca atcttggcaa tctgttatag gagagggatt 720
257 cttggaggcg ggtattcttc cagacaatgg atttagtttg gatcacgaag caggaactag 780
258 actcaccggc tcaacttttg acaataatgg aacgcgacat gcggctgatg aactgcttaa 840
259 taaaggagac cctaataact tgctagttgc agttcaggcc tcagtagaga agatcctctt 900
260 ctcttccaat acatcaagta tgttgcatca gtgatattta atggtagctc ctagtttgtc 960
261 atgctgcact cgaaaattat tattttatca ttttaaaata ctaacagaat agtgtgaagt 1020
262 ctcatatttc ccttccatat ttcccaaatt tccataaaca aaacttccca attctccttc 1080
263 gtttagtttg acaataatta taagctattc tctaatgcag atttgtcagc tattggagtc 1140
264 atatatacgg attctgatgg aaactctcat caggcatttg tacgcggtaa cggagaagtt 1200
265 attgttagtg cagggacaat cggaacgcct cagcttctac tacttagtgg cgttggacca 1260
266 gagtcttacc tatcttctct caacatcaca gttgttcagc cgaatcctta tgttgggcag 1320
267 tttgtgtatg acaatcctcg taatttcatt aatatttttgc ccccaaatcc aattgaagcc 1380
268 tctgttgtaa ctgttttagg cattagaagt gattattatc aagtttctct gtcaagcttg 1440
269 ccattttcca ctccacccct tagtctttttt cctacaacat cttacccect cccaaattcg 1500
270 acttttgctc atattgttag ccaagttcca ggaccattgt ctcatggttc tgtcacgcta 1560
271 aattcatcat ctgacgtgag aatcgctcca aatattaaat tcaattacta ttcaaattcc 1620
272 acagaccttg ctaattgtgt tagcggcatg aagaagcttg gtgacttatt aaggacaaag 1680
273 gcattagaac catataaagc tcgagatgtg ctgggaattg acggtttcaa ttatttggga 1740
274 gtacctttgc cagagaacca aacagatgat gcatccttcg aaacattttg tctagataat 1800
275 gtagcttcat actggcatta ccacggtgga agccttgttg ggaaagtgct tgatgacagt 1860
276 ttccgtgtta tggggatcaa agcattacgc gttgttgatg cctccacttt cccttacgaa 1920
277 ccaaacagcc atcctcaggg cttctatctg atgttaggaa ggtatgtgat gcacacttcc 1980
278 aaccactaga gattctcaat attttgttgt tgttgtaatg aactctctgc cgcattgctc 2040
279 ttttttatta atccttaaaa ttttgtgttt tgcgcaggta tgtgggcctt caaatcctgc 2100
280 aagaaaggtc aatccggttg gaggctattc ataatattca agagtccatg tgaagaattc 2160
281 cg                                                              2162
283 <210> SEQ ID NO: 20
284 <211> LENGTH: 559
285 <212> TYPE: PRT
286 <213> ORGANISM: Prunus amygdalus
288 <400> SEQUENCE: 20
289 Met Glu Lys Ser Thr Met Ser Val Ile Leu Phe Val Leu His Leu Leu
290  1               5                  10                  15
292 Val Leu His Leu Gln Tyr Ser Glu Val His Ser Leu Ala Asn Thr Ser
293             20                  25                  30
295 Ala His Asp Phe Ser Tyr Leu Lys Phe Val Tyr Asn Ala Thr Asp Thr
296         35                  40                  45
298 Ser Ser Glu Gly Ser Tyr Asp Tyr Ile Val Ile Gly Gly Gly Thr Ser
299     50                  55                  60
301 Gly Cys Pro Leu Ala Ala Thr Leu Ser Glu Lys Tyr Lys Val Leu Leu
302 65              70                  75                  80
304 Leu Glu Arg Gly Thr Ile Ala Thr Glu Tyr Pro Asn Thr Leu Thr Ala
305             85                  90                  95
307 Asp Gly Phe Ala Tyr Asn Leu Gln Gln Gln Asp Asp Gly Lys Thr Pro
308         100                 105                 110
310 Val Glu Arg Phe Val Ser Glu Asp Gly Ile Asp Asn Val Arg Ala Arg
311         115                 120                 125
313 Ile Leu Gly Gly Thr Thr Ile Ile Asn Ala Gly Val Tyr Ala Arg Ala
314     130                 135                 140
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/18/2002
PATENT APPLICATION: US/10/046,232 TIME: 12:29:03

Input Set : **N:\vernette\10046232.RAW.txt**
Output Set: **N:\CRF4\11182002\J046232.raw**

<u>Invalid Line Length:</u>
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 15

VERIFICATION SUMMARY   DATE: 11/18/2002
PATENT APPLICATION: **US/10/046,232**   TIME: 12:29:03

  Input Set : **N:\vernette\10046232.RAW.txt**
  Output Set: **N:\CRF4\11182002\J046232.raw**

L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date